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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,631	08/19/2003	Takeshi Tokuda	238389US2	3744

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,631

Applicant(s)

TOKUDA ET AL.

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-25 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 11 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The application filed 8/19/03 has been examined. Claims 1-30 are pending.
2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
3. The IDS filed 8/19/03 has been considered.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 1-5, 7-10, 12-20, 22-25 and 27-30 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saito et al. (6,533,704) in view of Ohsuga et al. (5,369,581).

A. As per claims 1, 12, 16 and 27, Saito discloses a vehicular control device (Fig. 1) for a vehicle having a power source (E) which generates driving force (1) which is transmitted to driving wheels (W) via an automatic transmission (TM) with variable efficiency (Abs). The device includes an electronic control unit (ECU) which performs the functions of cooperatively controlling the operating modes of the power source (E) and the transmission (TM) (col. 4, lines 26-67; col. 5, lines 4-5, 17-18). The cooperative control functions include a neutral control mode in which at least one clutch is adjusted to reduce engine load when the vehicle is stopped and the transmission is in DRIVE range (col. 6, lines 31-47). Saito also discloses prohibiting the neutral control mode if predetermined conditions are detected relative to efficient operation of at least the power source (col. 6, lines 4-7; col. 12, lines 13-18, 28-33). Saito discloses an embodiment in which the electronic control unit (ECU) is programmed to function as the "controller(s)" for controlling the power source, transmission and neutral control mode whereby the single electronic device performs the functions which may be equivalently performed by a plurality of separate, dedicated controllers. Thus, Saito is viewed as disclosing the claimed plurality of controllers, albeit in a "software" configuration. Alternatively, it would have been obvious to one of ordinary skill in the art to provide separate controllers for each function and to provide communication therebetween to carry out the cooperative control disclosed by Saito. Providing

separate control elements for automatic transmission and power source control is exemplified by the teachings of Ohsuga and would have been an alternative configuration for the system of Saito.

B. As per claims 2, 13, 17 and 28, as above wherein the transmission has a fluid clutch which is adjusted to change the operation of the transmission during neutral control (Fig. 1; col. 6, lines 31-47).

C. As per claims 3, 14, 18 and 29, as above wherein the power source is an internal combustion engine (Fig. 1:E; col. 5, lines 1-15).

D. As per claims 4 and 19, as above wherein Saito cooperatively controls the transmission and engine by adjusting the engine based on load requirements and initiating/prohibiting neutral control based on operating conditions (col. 2, lines 22-42; col. 5, line 47 to col. 6, line 47).

E. As per claims 5, 7-10, 15, 20, 22-25 and 30, as above wherein Saito discloses factors which may cause the prohibition of neutral control, which include at least deterioration of engine operation resulting in the malfunctioning of the throttle (col. 12, lines 28-33), lowered coolant temperature for the engine (col. 6, lines 4-6) and failure of any one of a plurality of sensors used in controlling the engine and/or transmission (col. 12, lines 11-18).

7. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al., alone or in combination with Ohsuga et al., in view of Takahashi (6,352,061).

A. As per claims 6 and 21, Saito is applied as above. The claimed invention differs in that the factor threatening to hinder performance is engine valve open-close timing.

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Although situations involving valve timing are not explicitly identified by Saito, one of ordinary skill in the art of vehicle engine control would have recognized that problems involving other critical operating functions, such as timing, which would have led to inefficient engine operation and thus would have been an additional basis upon which to prohibit neutral control. Takahashi is cited as evidence that it was known in the vehicle control art that valve timing is a critical function to be considered in cooperative control between the engine and automatic transmission (col. 1, lines 6-17).

8. Claims 11 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As per claims 11 and 26, the prior art of record does not show or reasonably suggest, in combination with the other claimed subject matter, a system/method which includes abstaining from prohibiting performance of neutral control if the factor threatening to cause deterioration in vehicular performance through performance of the neutral control has not been detected even where a factor threatening to hinder performance of cooperative control has been detected.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

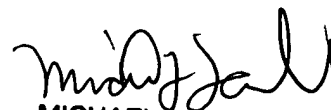
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz


MICHAEL J. ZANELLI
PRIMARY EXAMINER